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10/036,417	01/07/2002	Ernest A. Carroll		4695

7590 07/10/2003  
Ernest A. Carroll  
12913 Alton Square, No. 114  
Herndon, VA 20170

EXAMINER

HERNANDEZ, OLGA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/036,417

Applicant(s)

CARROLL, ERNEST A.

Examiner

Olga Hernandez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it is too long. Correction is required.  
See MPEP § 608.01(b).

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: grammatical error (line 9).  
Instead of “then” it supposes to read “the”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Hendrickson et al (6,529,615).

As per claims 1 and 2, Hendrickson discloses:

- an aircraft having image acquisition apparatus carried thereaboard (column 11, lines 25-28);

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- surveying the agricultural field by acquiring at least one image of the agricultural field from the image acquisition apparatus carried aboard the aircraft (column 4, lines 8-12);
- analyzing the at least one image obtained in the step of surveying the agricultural field to determine at least one local condition of the agricultural field and at least one requirement of the agricultural field relative to an agricultural operation (column 4, lines 13-34); and
- conducting the agricultural operation with respect to the agricultural field in a manner corresponding to the at least one requirement of the agricultural field as determined in the step of analyzing the at least one image (column 4, lines 35-38).

As per claim 17, Hendrickson discloses the use of GPS (figure 9).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-7, 12-14, 18, 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrickson et al (6,529,615).

As per claims 3 and 5, it would have been obvious to one of ordinary skill in the art that most of the aircraft today can gain altitude under its own power.

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As per claim 4, it would have been obvious to one of ordinary skill in the art to launching the aircraft from the ground.

As per claims 6, 7, 12 and 14, it would have been obvious to one of ordinary skill to fly the entire or part of the agricultural field being surveyed in one or more flights, because it is the operator choice.

As per claim 13, Hendrickson teaches the use of at least one aircraft (column 11, lines 25-28). However, it would have been obvious to one of ordinary skill in the art to add another aircraft in order to reduce the working time.

As per claim 18, it is old and well known to use environment sensors in the aircraft in order to appropriately control the aircraft and avoiding accidents.

As per claim 22-27, it would have been obvious to one of ordinary skill in the art to substitute any means for another means that perform the same function in order to enhance the quality of the view/data.

7. Claims 8-11, 15, 16 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrickson et al (6,529,615) in view of Abel et al (5,467,271).

As per claims 8 and 15, Hendrickson does not teach the automated flight control apparatus and a processor to control the automated flight control apparatus to achieve a predetermined flight path. However, Abel teaches it in column 4, lines 15-23. Therefore, it would have been obvious to one of ordinary skill in the art to combine the aforementioned inventions in order to optimize productivity of the farming field.

As per claims 9, 10 and 16, it is old and well known in the art to use radio frequency to communicate with a GPS.

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As per claim 11, it is old and well known the use of the environmental data acquired by the system in order to control the aircraft and avoid accidents.

As per claims 19-21, Hendrickson does not specify the area to be flown. However, this is the operator's choice.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 3-5 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "its" does not define the meets and bounds of the invention.

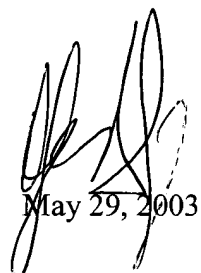
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Hernandez whose telephone number is (703) 305-0918. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

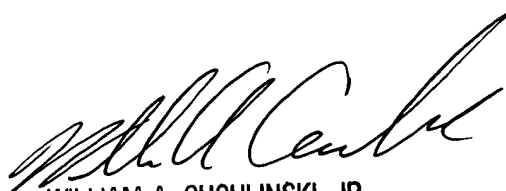
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



May 29, 2003

Olga Hernandez  
Examiner  
Art Unit 3661



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